TYPE S17/MEDIUM, AB/1-3

17/AB/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0006618735 BIOSIS NO.: 198987066626
QUANTITATION AND CLONING OF HUMAN URUSHIOL SPECIFIC PERIPHERAL BLOOD T-CELLS ISOLATION OF URUSHIOL TRIGGERED SUPPRESSOR T-CELLS
AUTHOR: KALISH R S (Reprint); MORIMOTO C
AUTHOR ADDRESS: DEP DERMATOL, BOX 98, ROOM 4-240, 516 DELAWARE ST SE, MINNEAPOLIS, MN 55455-0392, USA**USA
JOURNAL: Journal of Investigative Dermatology 92 (1): p46-52 1989
ISSN: 0022-202X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A limiting dilution assay was developed to quantitate urushiol (the antigen of poison ivy; Toxicodendron radicans) specific T cells from peripheral blood of a patient with a history of rhus (poison ivy) dermatitis. It was found that maximal sensitivity with minimal nonspecific proliferation could be produced with the use of 5 U/ml of recombinant IL2 added to the assay on day 6. This donor was found to have a frequency of urushiol specific peripheral blood T cells of (1/2935). Five interleukin 2 (IL2) dependent urushiol specific T-cell clones were generated from the peripheral blood of this patients. These T-cell clones had a CD8+ (T8+) phenotype and proliferated specifically to both extracts of T. radicans (poison ivy) leaves and pure urushiol. Pentadecylcatechol was an inferior antigen, only stimulating proliferation of one clone. The ability of all clones to proliferate to pure urushiol, despite their having been induced with leaf extract, suggests that urushiol, or closely related catechols, represent the only allergenic constituents of T. radicans. Lymphokine production in response to antigen varied between (0.6-5.0) units/ml of interleukin 2 (IL2) and (1.0-120) units/ml of gamma interferon. Although none of the clones showed significant cytotoxicity against NK targets, three of five lines showed considerable cytotoxicity against concanavalin A treated (lectin approximated) targets. However, cytotoxicity for rhus conjugated autologous targets was not detected. It was found that several of these CD8+ clones could suppress IgG production in the presence of rhus antigen. The isolation of these T-cells from peripheral blood several months after rhus dermatitis suggests that these clones may have a role in down regulating delayed hypersensitivity to urushiol.

17/AB/2 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

03858736 EMBASE No: 1989027691
Quantitation and cloning of human urushil specific peripheral blood T-cells: Isolation of urushiol triggered suppressor T-cells
Kalish R.S.; Morimoto C.
Dana-Farber Cancer Institute, Boston, MA United States
Journal of Investigative Dermatology (J. INVEST. DERMATOL.) (United States) 1989, 92/1 (46-52)
CODEN: JIDEA ISSN: 0022-202X
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A limiting dilution assay was developed to quantitate urushiol (the antigen of poison ivy; Toxicodendron radicans) specific T cells from peripheral blood of a patient with a history of rhus (poison ivy) dermatitis. It was found that maximal sensitivity with minimal nonspecific proliferation could be produced with the use of 5 U/ml of recombinant IL2 added to the assay on day 6. This donor was found to have a frequency of urushiol specific peripheral blood T cells of (1/2935). Five interleukin 2 (IL2) dependent urushiol specific T-cell clones were generated from the peripheral blood of this patient. These T-cell clones had a CD8+(T8+) phenotype and proliferated specifically to both extracts of Toxicodendron radicans (poison ivy) leaves and pure urushiol. Pentadecylcatechol was an inferior antigen, only stimulating proliferation of one clone. The ability of all clones to proliferate to pure urushiol, despite their having been induced with leaf extract, suggests that urushiol, or closely related catechols, represent the only allergenic constituents of Toxicodendron radicans. Lymphokine production in response to antigen varied between (0.6-5.0) units/ml of interleukin 2 (IL2) and (1.0-120) units/ml of gamma interferon. Although none of the clones showed significant cytotoxicity against NK targets, three of five lines showed considerable cytotoxicity against concanavalin A treated (lectin approximated) targets. However, cytotoxicity for rhus conjugated autologous targets was not detected. It was found that several of these CD8+ clones could suppress IgG production in the presence of rhus antigen. The isolated of these T-cells from peripheral blood several months after rhus dermatitis suggests that these clones may have a role in down regulating delayed hypersensitivity to urushiol.

17/AB/3 (Item 1 from file: 155)

07971861 PMID: 2521239

Quantitation and cloning of human urushiol specific peripheral blood T-cells: isolation of urushiol triggered suppressor T-cells.

Kalish R S; Morimoto C
Dana-Farber Cancer Institute, Boston, Massachusetts.

Journal of investigative dermatology (UNITED STATES) Jan 1989, 92 (1) p46-52, ISSN 0022-202X Journal Code: 0426720
Contract/Grant No.: AM33713; AM; NIADDK; AMO7804; AM; NIADDK
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

A limiting dilution assay was developed to quantitate urushiol (the antigen of poison ivy; Toxicodendron radicans) specific T cells from peripheral blood of a patient with a history of rhus (poison ivy) dermatitis. It was found that maximal sensitivity with minimal nonspecific proliferation could be produced with the use of 5 U/ml of recombinant IL2 added to the assay on day 6. This donor was found to have a frequency of urushiol specific peripheral blood T cells of (1/2935). Five interleukin 2 (IL2) dependent urushiol specific T-cell clones were generated from the peripheral blood of this patient. These T-cell clones had a CD8+ (T8+) phenotype and proliferated specifically to both extracts of Toxicodendron radicans (poison ivy) leaves and pure urushiol. Pentadecylcatechol was an inferior antigen, only stimulating proliferation of one clone. The ability of all clones to proliferate to pure urushiol, despite their having been induced with leaf extract, suggests that urushiol, or closely related catechols, represent the only allergenic constituents of Toxicodendron

radicans. Lymphokine production in response to antigen varied between (0.6-5.0) units/ml of interleukin 2 (IL2) and (1.0-120) units/ml of gamma interferon. Although none of the clones showed significant cytotoxicity against NK targets, three of five lines showed considerable cytotoxicity against concanavalin A treated (lectin approximated) targets. However, cytotoxicity for rhus conjugated autologous targets was not detected. It was found that several of these CD8+ clones could suppress IgG production in the presence of rhus antigen. The isolation of these T-cells from peripheral blood several months after rhus dermatitis suggests that these clones may have a role in down regulating delayed hypersensitivity to urushiol.
?

Set	Items	Description
S1	72676	NK
S2	152	"NATURAL KILLER"
S3	128	S1 AND S2
S4	72700	S1 OR S2
S5	16721	S4 AND ANTIGEN
S6	98507	SUPPRESS
S7	417155	INHIBIT
S8	505799	S6 OR S7
S9	1132	S5 AND S8
S10	163806	TREAT
S11	92353	CURE
S12	414959	IMPROVE
S13	655990	S10 OR S11 OR S12
S14	118674	DERMATITIS
S15	0	S9 AND S13 AND S14
S16	6	S9 AND S13
S17	3	S9 AND S14

?

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Ref    Items  Index-term
E1         2  AU=HOSHINO TETSUYA
E2         1  AU=HOSHINO TINA
E3        40 *AU=HOSHINO TOMOAKI
E4         1  AU=HOSHINO TOMOFUMI
E5         1  AU=HOSHINO TOMOHISA
E6         2  AU=HOSHINO TOMOHUMI
E7         4  AU=HOSHINO TOMOKI
E8        18  AU=HOSHINO TOMOKO
E9         1  AU=HOSHINO TOMOMI
E10        4  AU=HOSHINO TOMONORI
E11        1  AU=HOSHINO TOMOO
E12       35  AU=HOSHINO TOMOYUKI

          Enter P or PAGE for more
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Ref    Items  Index-term
E1         3  AU=KAWASE YUMI
E2         1  AU=KAWASE YUSHI
E3         8 *AU=KAWASE YUSUKE
E4         2  AU=KAWASE YUUJI
E5         3  AU=KAWASE-HANAFUSA A
E6         1  AU=KAWASE-HANAFUSA, ATSUKO
E7         1  AU=KAWASE-KAGEYAMA R.
E8         2  AU=KAWASE-KAGEYAMA RENA
E9         1  AU=KAWASE-KAGEYAMA, RENA
E10        5  AU=KAWASE, A.
E11       43  AU=KAWASE, AKIHARU
E12       11  AU=KAWASE, AKIHIRO

          Enter P or PAGE for more
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Ref    Items  Index-term
E1         2  AU=NOMIYAMA KANAKO
E2        20  AU=NOMIYAMA KAZUO
E3         2 *AU=NOMIYAMA KEIKO
E4        13  AU=NOMIYAMA KENSUKE
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E7         1  AU=NOMIYAMA KIYOSHI
E8         1  AU=NOMIYAMA KOJI
E9        16  AU=NOMIYAMA M
E10       19  AU=NOMIYAMA M.
E11        1  AU=NOMIYAMA MAKOTO
E12        6  AU=NOMIYAMA MARI

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Ref    Items  Index-term
E1         1  AU=YOKOTA KO-ICHI
E2         2  AU=YOKOTA KOHICHI
E3        44 *AU=YOKOTA KOICHI
E4         1  AU=YOKOTA KOJI
E5         1  AU=YOKOTA KOSUKE
E6         3  AU=YOKOTA KOUICHI
E7        18  AU=YOKOTA KOZO
E8         2  AU=YOKOTA KUNIHIKO
E9         8  AU=YOKOTA KUNINOBU
E10        2  AU=YOKOTA KUNIO
E11        5  AU=YOKOTA KURIKO
E12        5  AU=YOKOTA KYOKO

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Set	Items	Description
S1	72676	NK
S2	152	"NATURAL KILLER"
S3	128	S1 AND S2
S4	72700	S1 OR S2
S5	16721	S4 AND ANTIGEN
S6	98507	SUPPRESS
S7	417155	INHIBIT
S8	505799	S6 OR S7
S9	1132	S5 AND S8
S10	163806	TREAT
S11	92353	CURE
S12	414959	IMPROVE
S13	655990	S10 OR S11 OR S12
S14	118674	DERMATITIS
S15	0	S9 AND S13 AND S14
S16	6	S9 AND S13
S17	3	S9 AND S14
S18	44	AU='YOKOTA KOICHI'
S19	40	AU='HOSHINO TOMOAKI'
S20	2	AU='NOMIYAMA KEIKO'
S21	8	AU='KAWASE YUSUKE'
S22	78	S18 OR S19 OR S20 OR S21
S23	66	RD S22 (unique items)

TYPE S23/MEDIUM,AB/1-25

23/AB/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015130724 BIOSIS NO.: 200500037789
Tyrosinase gene analysis in Japanese patients with oculocutaneous albinism
AUTHOR: Goto Maki; Sato-Matsumura Kazuko C; Sawamura Daisuke; Yokota Koichi ; Nakamura Hideki; Shimizu Hiroshi (Reprint)
AUTHOR ADDRESS: Grad Sch MedDept DermatolKita Ku, Hokkaido Univ, N 15,W 7, Sapporo, Hokkaido, 0608638, Japan**Japan
AUTHOR E-MAIL ADDRESS: shimizu@med.hokudai.ac.jp
JOURNAL: Journal of Dermatological Science 35 (3): p215-220 September 2004 2004
MEDIUM: print
ISSN: 0923-1811 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background: Oculocutaneous albinism (OCA) is a heterogeneous congenital disorder. Tyrosinase is a key enzyme in melanin biosynthesis, and tyrosinase gene mutations cause the OCA1 subtype. Objective: This study was intended evaluate the frequency and details of tyrosinase gene mutations in Japanese OCA patients. Patients and methods: We examined nine non-consanguineous OCA families, sequenced the tyrosinase gene of the patients and also confirmed a splicing site mutation using exon trapping system. Results: Tyrosinase gene mutations were identified in five out of nine OCA families (55%). IVS2-10deltt-7t-a was present in 3 out of 18 alleles in three families (16%), P310insC was present in three alleles in three families (16%) and R278X was found in three alleles (16%), including those in one heterozygous and one compound homozygous patient. G97V (290 G-T) was found in 1 out of 18 alleles, and we could not find G97V in the mutation database. We have added this mutation as 9th mutation of Japanese OCA1 patients. In 8 of 18 alleles, four families, no tyrosinase mutations were identified. They were presumed not to be OCA1, but other subtypes of OCA. Exon trapping system demonstrated IVS2-10deltt-7t-a mutation generated the abnormal splicing site, and inserted the codon 4 bases in mRNA level resulting in premature termination codon downstream. Conclusion: This study provided new information about OCA1 mutations, and highlights the requirement of broader detailed search to make precise diagnosis of OCA. Copyright 2004 Japanese Society for Investigative Dermatology. Published by Elsevier Ireland Ltd. All rights reserved.

23/AB/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015124294 BIOSIS NO.: 200500031359
Limited role for interleukin-18 in the host protection response to pulmonary infection with Pseudomonas aeruginosa in mice
AUTHOR: Nakasone Chikara; Kawakami Kazuyoshi (Reprint); Hoshino Tomoaki; Kawase Yusuke; Yokota Koichi; Yoshino Kohichiro; Takeda Kiyoshi; Akira Shizuo; Saito Atsushi
AUTHOR ADDRESS: Grad SchDept Internal MedDiv Infect Dis, Univ Ryukyus, 207 Uehara, Nishihara, Okinawa, 9030215, Japan**Japan
AUTHOR E-MAIL ADDRESS: kawakami@med.u-ryukyu.ac.jp

JOURNAL: Infection and Immunity 72 (10): p6176-6180 October 2004 2004
MEDIUM: print
ISSN: 0019-9567 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We report that clearance of Pseudomonas aeruginosa, accumulation of neutrophils, and synthesis of tumor necrosis factor alpha and macrophage inflammatory protein 2 in the infected lung were not largely different in interleukin-18 (IL-18) knockout or transgenic mice compared with control mice. Our results suggest a limited role for IL-18 in the host defense against P. aeruginosa.

23/AB/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014994262 BIOSIS NO.: 200400365051
HB-EGF is essential for keratinocyte migration in skin wound healing
AUTHOR: Shirakata Yuji; Kimura Rina; Nanba Daisuke; Tokumaru Sho; Morimoto Chie; Yokota Koichi; Mekada Eisuke; Higashiyama Shigeki; Hashimoto Koji
JOURNAL: Journal of Dermatological Science 34 (2): p120 April 2004 2004
MEDIUM: print
CONFERENCE/MEETING: 29th Annual Meeting of the Japanese Society for Investigative Dermatology Kyoto, Japan April 14-16, 2004; 20040414
SPONSOR: Japanese Society for Investigative Dermatology
ISSN: 0923-1811 _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

23/AB/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014984667 BIOSIS NO.: 200400355456
Duplication of the lamina densa with aging
AUTHOR: Nakanishi Miki; Masunaga Takuji; Hata Tsuyoshi; Inomata Ken; Asano Hajime; Yokota Koichi; Akiyama Masashi; Shimizu Hiroshi
JOURNAL: Journal of Dermatological Science 34 (2): p150 April 2004 2004
MEDIUM: print
CONFERENCE/MEETING: 29th Annual Meeting of the Japanese Society for Investigative Dermatology Kyoto, Japan April 14-16, 2004; 20040414
SPONSOR: Japanese Society for Investigative Dermatology
ISSN: 0923-1811 _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

23/AB/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014900337 BIOSIS NO.: 200400271094
Molecular cloning, chromosomal location, and biological activity of porcine interleukin-21

AUTHOR: Muneta Yoshihiro (Reprint); Kikuma Reiko; Uenishi Hirohide; Hoshino Tomoaki; Yoshihara Kazuhiro; Tanaka Maiko; Hamashima Noriyuki; Mori Yasuyuki
AUTHOR ADDRESS: Natl Inst Anim Hlth, 3-1-5 Kannondai, Tsukuba, Ibaraki, 3050856, Japan**Japan
JOURNAL: Journal of Veterinary Medical Science 66 (3): p269-275 March 2004 2004
MEDIUM: print
ISSN: 0916-7250 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A pig interleukin-21 (IL-21) cDNA was successfully cloned and sequenced from porcine peripheral blood lymphocytes (PBL) stimulated with 10 mug/m/ concanavalin A (ConA), 10 mug/m/ phytohemagglutinin P (PHA), 50 ng/ml phorbol 12-myristate 13-acetate (PMA). and 0.5 mug/m/ anti-porcine CD3 antibody for 48 hr. The open reading frame of the porcine IL-21 cDNA is 459 base pairs in length and encodes 152 amino acids. The predicted amino acid sequence of the porcine IL-21 shows 86.2%, 77.7%, and 58.4% identity to the bovine, human, and marine IL-21, respectively. The porcine IL-21 gene was mapped to porcine chromosome 8 (8q22fwdarwq23) by means of fluorescence in situ hybridization and radiation hybrid mapping, where the porcine IL-2 gene had been mapped nearby. The recombinant porcine mature IL-21 expressed by E. coli induced dose-dependent proliferation and IFN-gamma production from a human NK cell line. NK0. The porcine IL-21 identified in this study will be helpful for the enhancement of innate immune responses of pigs.

23/AB/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014774682 BIOSIS NO.: 200400155439
B7-DC regulates asthmatic response by an IFN-gamma-dependent mechanism.
AUTHOR: Matsumoto Koichiro; Inoue Hiromasa (Reprint); Nakano Takako; Tsuda Miyuki; Yoshiura Yuki; Fukuyama Satoru; Tsushima Fumihiko; Hoshino Tomoaki; Aizawa Hisamichi; Akiba Hisaya; Pardoll Drew; Hara Nobuyuki; Yagita Hideo; Azuma Miyuki; Nakanishi Yoichi
AUTHOR ADDRESS: Graduate School of Medical Sciences, Research Institute for Diseases of the Chest, Kyushu University, 3-1-1 Maidashi, Higashi-ku, Fukuoka, 812-8582, Japan**Japan
AUTHOR E-MAIL ADDRESS: inoue@kokyu.med.kyushu-u.ac.jp
JOURNAL: Journal of Immunology 172 (4): p2530-2541 February 15, 2004 2004
MEDIUM: print
ISSN: 0022-1767 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: B7-H1 (PD-L1) and B7-DC (PD-L2) are the ligands for programmed death-1 (PD-1), which is a member of the CD28/CTLA-4 family and has been implicated in peripheral tolerance. We investigated the roles of B7-H1 and B7-DC in a murine OVA-induced allergic asthma model. B7-H1 was constitutively expressed on dendritic cells, macrophages, B cells, and T cells in the lungs of naive mice, and its expression could be dramatically increased after allergen challenge. In contrast, B7-DC expression was scarcely expressed on dendritic cells in naive mice, but was up-regulated after allergen challenge, although the up-regulation of

B7-DC expression on macrophages was minimal. Treatment of mice with anti-B7-DC mAb at the time of allergen challenge, but not at the time of sensitization, significantly increased their airway hyper-reactivity and eosinophilia. Such treatment also resulted in the increased production of IL-5 and IL-13, and decreased IFN-gamma production in the lungs and draining lymph node cells. These changes were diminished when mice were depleted of IFN-gamma, by anti-IFN-gamma mAb pretreatment. Interestingly, treatment with anti-B7-H1 or anti-PD-1 mAb did not significantly affect the asthmatic response. These results suggest a unique role for B7-DC in the regulation of asthmatic response through an IFN-gamma-dependent, but PD-1-independent, mechanism.

23/AB/7 (Item 7 from file: 5)

0014664731 BIOSIS NO.: 200400035488

Redox-active protein thioredoxin prevents proinflammatory cytokine- or bleomycin-induced lung injury.

AUTHOR: Hoshino Tomoaki (Reprint); Nakamura Hajime; Okamoto Masaki; Kato Seiya; Araya Shinichi; Nomiyama Keiko; Oizumi Kotaro; Young Howard A; Aizawa Hisamichi; Yodoi Junji
AUTHOR ADDRESS: Department of Internal Medicine 1, Kurume University School of Medicine, 67 Asahi-machi, Kurume, 830-0011, Japan**Japan
AUTHOR E-MAIL ADDRESS: hoshino@med.kurume-u.ac.jp
JOURNAL: American Journal of Respiratory and Critical Care Medicine 168 (9): p1075-1083 November 1, 2003 2003
MEDIUM: print
ISSN: 1073-449X _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Thioredoxin (TRX) is a multifunctional redox (reduction/oxidation)-active protein that scavenges reactive oxygen species by itself or together with TRX-dependent peroxiredoxin. TRX also has chemotaxis-modulating functions and suppresses leukocyte infiltration into sites of inflammation. Leukocyte infiltration and oxidative stress may be involved in the pathogenesis of several diseases, including interstitial lung diseases (ILD). We examined the effects of TRX in two mouse models of human ILD. Recently, we established a new mouse model for human ILD in which daily administration of proinflammatory cytokine interleukin (IL)-18 with IL-2 induces lethal lung injury accompanied by acute interstitial inflammatory responses. Administration of recombinant TRX suppressed IL-18/IL-2-induced interstitial infiltration of cells and prevented death and lung tissue damage. TRX-transgenic mice also showed resistance to lethal lung injury caused by IL-18/IL-2. Administration of bleomycin induces the infiltration of polymorphonuclear and mononuclear leukocytes in the pulmonary interstitium, followed by progressive fibrosis. Wild-type mice given recombinant TRX treatment and TRX-transgenic mice demonstrated a decrease in bleomycin-induced cellular infiltrates and fibrotic changes in the lung tissue. These results suggest that TRX modulates pulmonary inflammatory responses and acts to prevent lung injury. TRX may have clinical benefits in human ILD, including lung fibrosis, for which no effective therapeutic strategy currently exists.

23/AB/8 (Item 8 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

0014616309 BIOSIS NO.: 200300585028
Structures of N-glycan from human dermis.
AUTHOR: Uematsu Rie (Reprint); Nakagawa Hiroaki (Reprint); Deguchi Kisaburo ; Ota Mitsuhito; Yokota Koichi; Shimizu Hiroshi; Monde Kenji (Reprint); Nishimura Shin-ichiro (Reprint)
AUTHOR ADDRESS: Sapporo Laboratory for Glycocluster Project, Japan Bioindustry Association, Sapporo, Japan**Japan
JOURNAL: Glycobiology 13 (11): p846 November 2003 2003
MEDIUM: print
CONFERENCE/MEETING: 8th Annual Conference of the Society for Glycobiology San Diego, California, USA December 03-06, 2003; 20031203
SPONSOR: Society for Glycobiology
ISSN: 0959-6658
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

23/AB/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014574986 BIOSIS NO.: 200300529883
Exacerbated and prolonged allergic and non-allergic inflammatory cutaneous reaction in mice with targeted interleukin-18 expression in the skin.
AUTHOR: Kawase Yusuke; Hoshino Tomoaki (Reprint); Yokota Koichi; Kuzuhara Akemi; Kirii Yasuyuki; Nishiwaki Eiji; Maeda Yu; Takeda Junji; Okamoto Masaki; Kato Seiya; Imaizumi Toshihiro; Aizawa Hisamichi; Yoshino Kohichiro
AUTHOR ADDRESS: Department of Internal Medicine 1, Kurume University School of Medicine, 67 Asahi-machi, Kurume, 830-0011, Japan**Japan
AUTHOR E-MAIL ADDRESS: hoshino@med.kurume-u.ac.jp
JOURNAL: Journal of Investigative Dermatology 121 (3): p502-509 September 2003 2003
MEDIUM: print
ISSN: 0022-202X _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Interleukin 18 induces both T helper 1 and T helper 2 cytokines, proinflammatory cytokines, chemokines, and IgE and IgG1 production. A role of interleukin 18 in inflammatory cutaneous reactions is still unclear, however. Here we generated keratin 5/interleukin 18 transgenic mice overexpressing mature murine interleukin 18 in the skin using a human keratin 5 promoter. In the contact hypersensitivity model, trinitrochlorobenzene elicited a stronger ear swelling in keratin 5/interleukin 18 transgenic mice compared with control littermate wild-type or immunoglobulin/interleukin 18 transgenic mice in which mature interleukin 18 was expressed by B and T cells under the control of the immunoglobulin promoter. Application of an irritant, croton oil, induced stronger and more sustained ear swelling in keratin 5/interleukin 18 transgenic mice than in immunoglobulin/interleukin 18 transgenic or wild-type mice. Repetitive topical application (weekly for six consecutive weeks) of trinitrochlorobenzene to their ears also elicited a stronger cutaneous inflammation in keratin 5/interleukin 18 transgenic mice than seen in immunoglobulin/interleukin 18 transgenic or wild-type

mice. After these six trinitrochlorobenzene applications, the expression of interferon-gamma, interleukin-4, and CCL20 mRNA in the ear tissue was increased and dermal changes, such as acanthosis and eosinophilic, neutrophilic, and mast cell infiltration, were greater in keratin 5/interleukin 18 transgenic mice than in wild-type mice. Furthermore, the repetitive application elicited a significant increase in serum IgE levels and the number of B cells in the draining lymph node in keratin 5/interleukin 18 transgenic mice. These results suggest that overexpression of interleukin 18 in the skin aggravates allergic and nonallergic cutaneous inflammation, which is accompanied by high expression of T helper 1 and T helper 2 cytokines and chemokines in the skin.

23/AB/10 (Item 10 from file: 5)

0014560811 BIOSIS NO.: 200300516174

Interleukin-18 overproduction exacerbates the development of colitis with markedly infiltrated macrophages in interleukin-18 transgenic mice.

AUTHOR: Ishikura Takahiro; Kanai Takanori (Reprint); Uraushihara Koji; Iiyama Ryoichi; Makita Shin; Totsuka Teruji; Yamazaki Motomi; Sawada Taisuke; Nakamura Tetsuya; Miyata Tatsuya; Kitahora Tetsuji; Hibi Toshifumi; Hoshino Tomoaki; Watanabe Mamoru
AUTHOR ADDRESS: Department of Gastroenterology and Hepatology, Graduate School, Tokyo Medical and Dental University, Tokyo, Japan**Japan
AUTHOR E-MAIL ADDRESS: taka.gast@tmd.ac.jp

JOURNAL: Journal of Gastroenterology and Hepatology 18 (8): p960-969 August 2003 2003
MEDIUM: print
ISSN: 0815-9319
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background and Aim: The authors have previously shown that production of interleukin (IL)-18 was increased in the inflamed mucosa of patients with Crohn's disease (CD) and blockade of IL-18 ameliorated the murine model of CD. This demonstrated that IL-18 plays a significant role during intestinal inflammation. However, the initial role of IL-18 during intestinal inflammation was unclear; therefore the susceptibility of IL-18 transgenic (Tg) mice to acute dextran sulfate sodium (DSS)-induced colitis was examined. Methods: Interleukin-18 Tg and wild-type (WT) mice were fed 2.0% of DSS for 8 days. The total clinical scores (bodyweight loss, stool consistency, and rectal bleeding), colon length and histological scores were assessed. The expressions of surface markers and IL-18 on infiltrating lamina propria mononuclear cells were analyzed immunohistochemistrically. Mesenteric lymph node (MLN) cells were isolated and the expressions of CD4+ T-cell activation markers (CD69, CD25 and IL18R) were analyzed by flow cytometry. Results: The IL-18 Tg mice exhibited an increased susceptibility to DSS-induced colitis, as shown by significantly increased clinical, histological scores, and more severe colonic shortening compared with WT mice. Immunohistochemical analysis revealed a significant increase of IL-18 production and CD11b+ macrophages but not CD4+T cells in the inflamed mucosa in DSS-fed IL-18 Tg compared with DSS-fed WT mice. Furthermore, MLN cells revealed no evidence of increased CD4+ T-cell activation in DSS-fed IL-18 Tg. Conclusions: These findings suggest that IL-18 overproduction in the mucosa plays an important role in the marked infiltration of macrophages

and exacerbates colitis in IL-18 Tg mice.

23/AB/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014254287 BIOSIS NO.: 200300213006
Thioredoxin (TRX) prevents proinflammatory cytokine- or bleomycin-induced lung injury.
AUTHOR: Hoshino Tomoaki (Reprint); Aizawa Hisamichi (Reprint)
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JOURNAL: Journal of Pharmacological Sciences 91 (Supplement I): p97P 2003 2003
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LANGUAGE: English

23/AB/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013835572 BIOSIS NO.: 200200429083
The majority of keratinocytes incorporate intradermally injected plasmid DNA regardless of size but only a small proportion of cells can express the gene product
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JOURNAL: Journal of Investigative Dermatology 118 (6): p967-971 June, 2002 2002
MEDIUM: print
ISSN: 0022-202X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The expression of intradermally injected DNA by keratinocytes is found mainly in the upper and middle layers of the epidermis. To investigate the mechanism of this selective expression, we observed the sequential changes in the distribution of interleukin-6-expressing keratinocytes after the introduction of the interleukin-6 gene. Transgene expression first occurred in basal keratinocytes and subsequently expanded to all epidermal layers and then remained in the upper layers. Semiquantitative analysis indicated that keratinocytes in the lower layers incorporated and lost DNA earlier than those in the upper layers. In order to examine the effect of the DNA size on the transgene expression, we constructed a plasmid containing a full-length 9 kb cDNA of type VII collagen and introduced it into keratinocytes. The expression pattern of type VII collagen in the epidermis was the same as those for smaller genes. This suggests that plasmid size has little or no effect on

the expression pattern of the transfected gene. To trace the introduced plasmid, we intradermally injected a green fluorescence protein expression plasmid coupled with a rhodamine flag. Almost all keratinocytes in the injected areas showed rhodamine fluorescence. Furthermore, some cells also expressed green fluorescence protein. A lack of rhodamine fluorescence in the nucleus suggested an impairment of plasmid DNA transport from the cytoplasm to the nucleus. Collectively, our results show that the majority of keratinocytes take up the intradermally injected DNA regardless of its size, but that the transfer of DNA from the cytoplasm to the nucleus is limiting the transgene expression.

23/AB/13 (Item 13 from file: 5)

0013819571 BIOSIS NO.: 200200413082

Contribution of IL-18 to Th1 response and host defense against infection by Mycobacterium tuberculosis: A comparative study with IL-12p40

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JOURNAL: Journal of Immunology 169 (1): p323-329 July 1, 2002 2002
MEDIUM: print
ISSN: 0022-1767
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RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The present study was conducted to critically determine the protective role of IL-18 in host response to Mycobacterium tuberculosis infection. IL-18-deficient (knockout (KO)) mice were slightly more prone to this infection than wild-type (WT) mice. Sensitivity of IL-12p40KO mice was lower than that of IL-12p40/IL-18 double KO mice. IFN-gamma production caused by the infection was significantly attenuated in IL-18KO mice compared with WT mice, as indicated by reduction in the levels of this cytokine in sera, spleen, lung, and liver, and its synthesis by spleen cells restimulated with purified protein derivatives. Serum IL-12p40 level postinfection and its production by peritoneal exudate cells stimulated with live bacilli were also significantly lower in IL-18KO mice than WT mice, suggesting that attenuated production of IFN-gamma was secondary to reduction of IL-12 synthesis. However, this was not likely the case, because administration of excess IL-12 did not restore the reduced IFN-gamma production in IL-18KO mice. In further studies, IL-18 transgenic mice were more resistant to the infection than control littermate mice, and serum IFN-gamma level and its production by restimulated spleen cells were increased in the former mice. Taken together, our results indicate that IL-18 plays an important role in Th1 response and host defense against M. tuberculosis infection although the contribution was not as profound as that of IL-12p40.

23/AB/14 (Item 14 from file: 5)

0013655004 BIOSIS NO.: 200200248515
Analysis of ATP2C1 gene mutation in 10 unrelated Japanese families with Hailey-Hailey disease
AUTHOR: Yokota Koichi (Reprint); Takizawa Yasuko; Yasukawa Kana; Kimura Kumiko; Nishikawa Takeji; Shimizu Hiroshi
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JOURNAL: Journal of Investigative Dermatology 118 (3): p550-551 March, 2002 2002
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LANGUAGE: English

23/AB/15 (Item 15 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013627599 BIOSIS NO.: 200200221110
Partial impairment of interleukin-12 (IL-12) and IL-18 signaling in tyk2-deficient mice
AUTHOR: Shimoda Kazuya (Reprint); Tsutsui Hiroko; Aoki Kenichi; Kato Kouji; Matsuda Tadashi; Numata Akihiko; Takase Ken; Yamamoto Tetsuya; Nukina Hideyuki; Hoshino Tomoaki; Asano Yoshinobu; Gondo Hisashi; Okamura Takashi; Okamura Seiichi; Nakayama Kei-ichi; Nakanishi Kenji; Niho Yoshiyuki; Harada Mine
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JOURNAL: Blood 99 (6): p2094-2099 March 15, 2002 2002
MEDIUM: print
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Tyk2 is activated in response to interleukin-12 (IL-12) and is essential for IL-12-induced T-cell function, including interferon-gamma (IFN-gamma) production and Th1 cell differentiation. Because IL-12 is a stimulatory factor for natural killer (NK) cell-mediated cytotoxicity, we examined whether tyk2 is required for IL-12-induced NK cell activity. IL-12-induced NK cell activity in cells from tyk2-deficient mice was drastically reduced compared to that in cells from wild-type mice. IL-18 shares its biologic functions with IL-12. However, the molecular mechanism of IL-18 signaling, which activates an IL-1 receptor-associated kinase and nuclear translocation of nuclear factor-kappaB, is different from that of IL-12. We next examined whether biologic functions induced by IL-18 are affected by the absence of tyk2. NK cell activity and IFN-gamma production induced by IL-18 were reduced by the absence of tyk2. Moreover, the synergistic effect of IL-12 and IL-18 for the production of IFN-gamma was also abrogated by the absence of tyk2. This was partially due to the absence of any up-regulation of the IL-18 receptor treated with IL-12, and it might suggest the presence of the cross-talk between Jak-Stat and mitogen-activated protein kinase pathways in cytokine signaling.

23/AB/16 (Item 16 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013610802 BIOSIS NO.: 200200204313
New strategy for antedrug application: Development of metalloproteinase inhibitors as antipsoriatic drugs
AUTHOR: Sawa Masaaki (Reprint); Tsukamoto Takako; Kiyoi Takao; Kurokawa Kiriko; Nakajima Fumio; Nakada Yuichiro; Yokota Koichi; Inoue Yoshimasa; Kondo Hirosato; Yoshino Kohichiro
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JOURNAL: Journal of Medicinal Chemistry 45 (4): p930-936 February 14, 2002 2002
MEDIUM: print
ISSN: 0022-2623
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Phosphonamide-based inhibitors were synthesized and evaluated for the inhibitory activities against the shedding of epidermal growth factors, amphiregulin and heparin-binding EGF-like growth factor, that would participate in the development of psoriasis. All compounds exhibited excellent inhibitory activities for these EGF sheddings; however, they also inhibited matrix metalloproteinases (MMPs). To avoid adverse effects reported by the clinical development of MMP inhibitors, the antedrug concept was introduced. Among the phosphonamide inhibitors, the 2,2,2-trifluoroethyl ester 8d and 2,2-difluoroethyl ester 8c showed rapid decomposition in human plasma, which is an essential property for the antedrug. Topical applications of these compounds significantly suppressed TPA-induced epidermal hyperplasia in murin skin, a model of psoriasis. These results suggested that the phosphonamide-based inhibitors have a therapeutic potential for the treatment of psoriasis as an antedrug application.

23/AB/17 (Item 17 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013581539 BIOSIS NO.: 200200175050
Interleukin 18 (IL-18) in synergy with IL-2 induces lethal lung injury in mice: A potential role for cytokines, chemokines, and natural killer cells in the pathogenesis of interstitial pneumonia
AUTHOR: Okamoto Masaki; Kato Seiya; Oizumi Kotaro; Kinoshita Masaharu; Inoue Yoshimasa; Hoshino Katsuaki; Akira Shizuo; McKenzie Andrew N J; Young Howard A; Hoshino Tomoaki (Reprint)
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JOURNAL: Blood 99 (4): p1289-1298 February 15, 2002 2002
MEDIUM: print
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Interleukin 18 (IL-18) was discovered as an interferon-gamma (IFN-gamma)-inducing factor and plays important roles in natural killer

(NK) cell activation. IL-18 also induces proinflammatory cytokines; chemokines; helper T-cell 2 (TH2) cytokines (eg, IL-4, IL-13); and immunoglobulin E (Ig-E) and IgG1 production. The combination of IL-18 plus IL-2 or IL-12 up-regulates IFN-gamma gene expression and NK cytotoxicity and has synergistic antitumor activity in vivo and in vitro. Here it is reported that daily administration of IL-18 with IL-2, but not of IL-18 or IL-2 alone, induces lethal lung injury in normal mice, but not in IL-18 receptor alpha (IL-1 receptor-related protein)-deficient (IL-18 receptor alpha-/-) mice. Marked interstitial infiltration of lymphocytes, composed mainly of NK cells, was found in the lungs of IL-18/IL-2-treated mice. Increased cytokine and chemokine levels were observed in the sera and lungs of IL-18/IL-2-treated mice. Administration of IL-18/IL-2 was also lethal to mice treated with a metalloproteinase inhibitor, which inhibited tumor necrosis factor-alpha and Fas-ligand release. While IFN-gamma-/- mice were partially resistant to the treatment, IL-4-/-, IL-13-/-, IL-4/IL-13-/-, and Stat6-/- mice were sensitive to IL-18/IL-2, indicating that these genes were not involved in the host response. The lethal effect by IL-18/IL-2 was completely eliminated in severe combined immunodeficient mice pretreated with antiasialo-GM1 antibody and normal mice pretreated with anti-NK1.1 but not with anti-CD4 or anti-CD8, monoclonal antibody. These results suggest that specific cytokines, chemokines, and NK cells are involved in the pathogenesis of interstitial pneumonia. These results suggest that the clinical use of this interleukin may result in unexpected physiological consequences.

23/AB/18 (Item 18 from file: 5)

0013285602 BIOSIS NO.: 200100457441

Identification of a human homologue of the dendritic cell-associated C-type lectin-1, dectin-1

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JOURNAL: Gene (Amsterdam) 272 (1-2): p51-60 11 July, 2001 2001
MEDIUM: print
ISSN: 0378-1119
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Previously we identified the novel type II lectin receptor, dectin-1, that is expressed preferentially by murine antigen presenting dendritic cells (DC) and is involved in co-stimulation of T cells by DC. To identify the human homologue (DECTIN-1), we employed degenerative PCR amplification of mRNA isolated from DC and subsequent cDNA cloning. DECTIN-1 is a type II lectin receptor with high homology to type II lectin receptors expressed by natural killer (NK) cells. It contains an immunoreceptor tyrosine-based activation motif within the cytoplasmic domain. Human DECTIN-1 mRNA is expressed predominantly by peripheral blood leukocytes and preferentially by DC. The mRNA likely encodes a 33 kDa glycoprotein. In human epidermis, the protein is expressed selectively by Langerhans cells, which are an epidermal subset of DC. A truncated form of DECTIN-1 RNA (termed Tbeta) encodes for a polypeptide lacking almost the entire neck domain, which is required for

accessibility of the carbohydrate recognition domain to ligands. Genome analysis showed the deleted amino acid sequence in Tbeta to be encoded by an exon, indicating that Tbeta RNA is produced by alternative splicing. DECTIN-1 gene maps to chromosome 12, between p13.2 and p12.3, close to the NK gene complex (12p13.1 to p13.2) which contains genes for NK lectin receptors. Our results indicate that human DECTIN-1 shares many features with mouse dectin-1, including the generation of neck domain-lacking isoforms, which may down-regulate the co-stimulatory function of dectin-1.

23/AB/19 (Item 19 from file: 5)

0013063405 BIOSIS NO.: 200100235244

CIS3/SOCS3/SSI3 plays a negative regulatory role in STAT3 activation and intestinal inflammation

AUTHOR: Suzuki Asuka; Hanada Toshikatsu; Mitsuyama Keiichi; Yoshida Takafumi; Kamizono Shintaro; Hoshino Tomoaki; Kubo Masato; Yamashita Atsuko; Okabe Masaru; Takeda Kiyoshi; Akira Shizuo; Matsumoto Satoshi; Toyonaga Atsushi; Sata Michio; Yoshimura Akihiko (Reprint)
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JOURNAL: Journal of Experimental Medicine 193 (4): p471-481 February 19, 2001 2001
MEDIUM: print
ISSN: 0022-1007
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Immune and inflammatory systems are controlled by multiple cytokines, including interleukins (ILs) and interferons. These cytokines exert their biological functions through Janus tyrosine kinases and signal transducer and activator of transcription (STAT) transcription factors. We recently identified two intrinsic Janus kinase (JAK) inhibitors, JAK binding protein (JAB; also referred to as suppressor of cytokine signaling (SOCS1)/STAT-induced STAT inhibitor (SSI1)) and cytokine-inducible SH2 protein (CIS)3 (or SOCS3/SSI3), which play an essential role in the negative regulation of cytokine signaling. We have investigated the role of STATs and these JAK inhibitors in intestinal inflammation. Among STAT family members, STAT3 was most strongly tyrosine phosphorylated in human ulcerative colitis and Crohn's disease patients as well as in dextran sulfate sodium (DSS)-induced colitis in mice. Development of colitis as well as STAT3 activation was significantly reduced in IL-6-deficient mice treated with DSS, suggesting that STAT3 plays an important role in the perpetuation of colitis. CIS3, but not JAB, was highly expressed in the colon of DSS-treated mice as well as several T cell-dependent colitis models. To define the physiological role of CIS3 induction in colitis, we developed a JAB mutant (F59D-JAB) that overcame the inhibitory effect of both JAB and CIS3 and created transgenic mice. DSS induced stronger STAT3 activation and more severe colitis in F59D-JAB transgenic mice than in their wild-type littermates. These data suggest that hyperactivation of STAT3 results in severe colitis and that CIS3 plays a negative regulatory role in intestinal inflammation by downregulating STAT3 activity.

23/AB/20 (Item 20 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

0012670741 BIOSIS NO.: 200000389054
In vivo administration of IL-18 can induce IgE production through Th2 cytokine induction and up-regulation of CD40 ligand (CD154) expression on CD4+ T cells
AUTHOR: Hoshino Tomoaki (Reprint); Yagita Hideo; Ortaldo John R; Wiltrout Robert H; Young Howard A
AUTHOR ADDRESS: Department of Internal Medicine 1, Kurume University School of Medicine, 67 Asahi-machi, Kurume, 830-0011, Japan**Japan
JOURNAL: European Journal of Immunology 30 (7): p1998-2006 July, 2000 2000
MEDIUM: print
ISSN: 0014-2980
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: IL-18 is considered to be a strong cofactor for CD4+ T helper 1 (Th1) cell induction. We have recently reported that IL-18 can induce IL-13 production in both NK cells and T cells in synergy with IL-2 but not IL-2, suggesting IL-18 can induce Th1 and Th2 cytokines when accompanied by the appropriate first signals for T cells. We have now found that IL-18 can act as a cofactor to induce IL-4, IL-10 and IL-13 as well as IFN-gamma production in T cells in the presence of anti-CD3 monoclonal antibodies (mAb). IL-18 can rapidly induce CD40 ligand (CD154) mRNA and surface expression on CD4+ but not CD8+ T cells. The administration of IL-18 alone in vivo significantly increased serum IgE levels in C57BL/6 (B6) and B6 IL-4 knockout mice. Futhermore, the administration of IL-18 plus IL-12 induced approximately 70-fold and 10-fold higher serum levels of IgE and IgG1 than seen in control B6 mice, respectively. IgE and IgG1 induction in B6 mice by administration of IL-18 plus IL-2 was eliminated by the pretreatment of mice with anti-CD4 or anti-CD154, but not anti-CD8 or anti-NK1.1 mAb. These results suggest that IL-18 can induce Th2 cytokines and CD154 expression, and can contribute to CD4+ T cell-dependent, IL-4-independent IgE production.

23/AB/21 (Item 21 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012377675 BIOSIS NO.: 200000095988
Small angle X-ray scattering studies on local structure of tobacco mosaic virus RNA in solution
AUTHOR: Muroga Yoshio; Sano Yoh (Reprint); Inoue Hideo; Suzuki Kayoko; Miyata Tina; Hiyoshi Takahiko; Yokota Koichi; Watanabe Yasushi; Liu Xinqi ; Ichikawa Sosaku; Tagawa Hiroyuki; Hiragi Yuzuru
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JOURNAL: Biophysical Chemistry 83 (3): p197-209 Jan. 24, 2000 2000
MEDIUM: print
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LANGUAGE: English

ABSTRACT: Effects of temperature and ionic strength (S) on the local structure of tobacco mosaic virus RNA in phosphate buffer solution are studied by analyzing the small-angle X-ray scattering (SAXS) curves. The

root-mean-square radius of a cross-section of RNA chain was kept at 0.845 +- 0.005 nm over a wide range of S from 0.2 to 0.003 at 20degreeC, whereas it gradually diminished from 0.85 to 0.61 nm when the temperature is raised from 20 to 50degreeC at S = 0.2. Nevertheless, all of SAXS curves reflecting the backbone structures were equally mimicked by theoretical ones of freely hinged rod (FHR) models, i.e. several straight rods joined with freely hinged joints in the form of a combination of the letter Y, if the constituent rod lengths in the models are adjusted. From these facts, it is suggested that the local structure of the RNA chain in aqueous solution is characterized by an essential feature that unpaired bases in the partially double-stranded helix are constantly far isolated from each other along the helix and the rod-like structure of the helix is preserved over a range of helical contents. Such a characteristic local structure of the chain is entirely collapsed in the formamide solution at 50degreeC.

23/AB/22 (Item 22 from file: 5)

0012187806 BIOSIS NO.: 199900447466

Functional Fas ligand expression in thyrocytes from patients with Graves' disease

AUTHOR: Hiromatsu Yuji (Reprint); Hoshino Tomoaki; Yagita Hideo; Koga Mari; Sakisaka Shotaro; Honda Junnichi; Yang Damu; Kayagaki Nobuhiko; Okumura Ko; Nonaka Kyohei
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JOURNAL: Journal of Clinical Endocrinology and Metabolism 84 (8): p 2896-2902 Aug., 1999 1999
MEDIUM: print
ISSN: 0021-972X
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RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Fas/Fas ligand (FasL) interaction has been suggested to play a role in the pathogenesis of Hashimoto's thyroiditis. This manuscript addressed a role for Fas/FasL interaction in the pathogenesis of Graves' disease (GD). Apoptosis was detected in 0.5-5.0% of GD thyrocytes, but not in normal thyrocytes from patients with adenoma (N). Fas was constitutively expressed on the basement membrane of both GD and N thyrocytes. Thyrocytes expressed Bcl-2 constitutively in both GD and N thyrocytes. FasL was detected at the messenger ribonucleic acid level in thyroid tissue and cultured thyroid cells by Northern blotting and RT-PCR. FasL protein was detected in the cytoplasm and basolateral surface of thyrocytes from GD, but not in N. Cell surface expression of FasL on cultured thyrocytes disappeared within 48 h after their isolation. However, it was retained by culturing the cells with a matrix metalloproteinase inhibitor. Coculture with thyrocytes induced apoptosis of Fas transfectants, which wasblocked by an anti-FasL antibody. Although cultured thyrocytes expressed Fas on the surface, they were not killed by an agonistic anti-Fas antibody. Interferon-gamma-induced Fas up-regulation was suppressed by TSH. These results suggest that the increased expression of FasL in GD thyrocytes, the down-regulation of Fas expression by TSH or possibly by TSH receptor autoantibody, and the overexpression of Bcl-2, which could render thyrocytes resistant to FasL-mediated elimination, may thus be involved in the pathogenesis of

GD.

23/AB/23 (Item 23 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012185629 BIOSIS NO.: 199900445289
Identification of mRNA-rich keratinocytes in the basal/suprabasal layers of psoriatic skin by non-radioactive in situ hybridization
BOOK TITLE: Hokkaido University Medical Library Series; What's new in the skin? Special reference on the current understanding of psoriasis
AUTHOR: Yokota Koichi (Reprint); Matsue Hiroyuki (Reprint); Shibaki Akihiko (Reprint); Kawashima Toshimitsu (Reprint); Kobayashi Hitoshi (Reprint); Ohkawara Akira (Reprint)
BOOK AUTHOR/EDITOR: Ohkawara A (Editor); Kobayashi H (Editor); Koizumi H (Editor); Shimizu T (Editor)
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SERIES TITLE: Hokkaido University Medical Library Series 39 p77-80 1999
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LANGUAGE: English

23/AB/24 (Item 24 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0011960136 BIOSIS NO.: 199900219796
Interleukin 13 (IL-13) production by NK cells: Induction by IL-2 and IL-15
AUTHOR: Hoshino Tomoaki (Reprint); Winkler-Pickett Robin T (Reprint); Mason Anna T (Reprint); Ortaldo John R (Reprint); Young Howard A (Reprint)
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JOURNAL: Natural Immunity 16 (2-3): p62 Feb., 1998 1998
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CONFERENCE/MEETING: Fifth Annual Meeting of the Society for Natural Immunity Seventeenth International Natural Killer Cell Workshop Warrenton, Virginia, USA October 17-21, 1998; 19981017
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LANGUAGE: English

23/AB/25 (Item 25 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0011706866 BIOSIS NO.: 199800501113
General pharmacology of an anticoagulant, danaparoid sodium
AUTHOR: Yokota Koichi; Takase Hideshi; Takaki Kazunori; Matsuo Konomi; Yamashita Akira; Sukamoto Takayuki
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JOURNAL: Oyo Yakuri 56 (1): p41-50 Aug., 1998 1998
MEDIUM: print
ISSN: 0300-8533
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: Japanese

ABSTRACT: General pharmacology of danaparoid sodium (danaparoid), an anticoagulant, glycosaminoglycan of which main ingredient is heparan sulfate, was investigated. Danaparoid at 100-1,000 anti-XaU/kg, i.v. did not affect general behavior, spontaneous locomotion, hexobarbital-induced sleeping or rectal temperature in mice and did not show any anticonvulsant effect on maximal electroshock- and pentetrazol-induced seizures, potentiating effect on pentetrazol-induced seizure or antinociceptive effect in acetic acid-induced writhing test in mice. Danaparoid at 100-1,000 anti-XaU/kg, i.v. did not show any effect on respiration, blood pressure, heart rate, electrocardiogram or arterial blood flows in anesthetized dogs. In the isolated rabbit ileum, danaparoid at 30 and 100 anti-XaU/ml slightly stimulated the spontaneous movement. Danaparoid at 30 anti-XaU/ml caused a slight contraction, whereas it did not affect the contraction induced by acetylcholine, histamine, serotonin or BaCl, in the isolated guinea pig ileum. Danaparoid at 100-1,000 anti-XaU/kg, i.v. did not affect intestinal propulsion of charcoals in mice or urinary excretion in rats. Intradermal administration of danaparoid at 1.5-50 anti-XaU/site did not increase vascular permeability in rats. Danaparoid at 0.3- 100 anti-XaU/ml did not induce hemolysis in guinea pig erythrocytes. These results suggest that danaparoid may be a safety anticoagulant.
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